

## Polysorbates

O7582. Polysorbates 
$$HO(CH_2CH_2O)_w \qquad (OCH_2CH_2)_xOH \qquad (OCH_2CH_2)_yOH \qquad (OCH_2CH_2)_z \\ \qquad Polysorbate 80 \qquad (Sum of w, x, y, and z is 20)$$

## **Explanatory Notes**

Polyoxyethylene sorbitan esters; POE sorbitan esters. Nonionic surfactants derived from sorbitan esters, q.v. Comprehensive description: P. Becher, "Polyol Surfactants" in *Nonionic Surfactants*, M. J. Schick, Ed. (Dekker, New York, 1967) pp 247-299. Description of prepn and uses: L. R. Chislett, J. Walford, *Int. Flavours Food Addit.* 7, 61 (1976). Pharmacology of polysorbate 80: R. K. Varma *et al.*, *Arzneim.-Forsch.* 35, 804 (1985). Determn in foods: H. Kato *et al.*, *J. Assoc. Off. Anal. Chem.* 72, 27 (1989).

**Polysorbate 80**. [9005-65-6] Polyoxyethylene (20) sorbitan monooleate; POE (20) sorbitan monooleate. Emsorb 6900 (Emery); Liposorb O-20 (Lipo); Monitan (Ives); Sorlate (Abbott); T-Maz 80 (Mazur); Tween 80 (ICI). Lemon- to amber-colored, oily liquid. d 1.06-1.09. Viscosity (25°): 300-500 cSt. Very sol in water; sol in alcohol, cottonseed oil, corn oil, ethyl acetate, methanol, toluene. Insol in mineral oil. pH of 5% aq soln between 6 and 8. LD<sub>50</sub> in mice, rats (mI/kg): 7.5, 6.3 i.p. (Varma).

USE: As emulsifiers and dispersing agents in medicinal products; as defoamers and emulsifiers in foods. Pharmaceutic aid (surfactant).

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